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Special Report No. 2

A PRELIMINARY REPORT CONCERNING RADIAL GROWTH OF SELECTED TREES AT NEOTOMA

by

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OHIO AGRICULTURAL EXPERIMENT STATION
Wooster, Ohio

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A PRELIMINARY REPORT CONCERNING RADIAL GROWTH OF SELECTED TREES AT NEOTOMA[1]

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Studies concerning radial growth of trees were initiated within the current Neotoma ecological research program (Gilbert, 1961) on February 22, 1955, utilizing dendrometers (Fig. 1) patterned after that of Daubenmire (1945). Brass reference screws were placed at breast height on the north side of the trunk in 11 trees, composing 11 canopy species at the Mixed Mesophytic station (Fig. 2). The studies were expanded until, at the time of termination in September, 1960, 41 trees representing 20 species in the Mixed Mesophytic, Mixed Oak, and Chestnut Oak study areas[2] were being measured (Table 1). Measurement readings, to the nearest ½ thousandth inch, were taken at weekly intervals throughout the year.

RESULTS

Table 1 contains 1) scientific and common names of woody species utilized for radial growth studies, 2) the individual number of each woody stem measured for radial change (first digit is community station number — see Fig. 1 — ; second digit is individual number), 3) DBH in inches of each woody stem, 4) date measurement initiated, 5) date measurement terminated, and 6) number of radial growth seasons during which data were obtained. The initiation date may not correspond to first values appearing in Tables 2 through 4 since preliminary data of the first few woody stems prepared for radial growth measurement are omitted.

1 A special report of the Neotoma Ecological and Bioclimatic Laboratory jointly sponsored by the Ohio Agricultural Experiment Station, The Ohio State University, and the United States Atomic Energy Commission [contract no. AT(11-1)-552].

2 Neotoma Special Report No. 4, presently in manuscript, contains detailed ecological descriptions of these study areas.

Tables 2 through 4 contain accumulative, i.e. integrated, weekly radial growth values. Non-entry of data appears as a blank or a hyphen. A blank indicates that measurements had not been initiated or had been terminated, while a hyphen signifies that measurements are erroneous. Data of questionable validity are included in parentheses. The zero growth value of each individual for a given calendar year was arbitrarily chosen as equal to the maximum growth value occurring after rehydration during the preceding fall or early winter.

Tables 5 through 7 include dates of radial growth initiation and total yearly increment. When maximum radial values were not attained before January 1, readings above zero occurred prior to actual growth initiation of the following spring.

Figure 1. — Dendrometer used for measurement of radial growth.

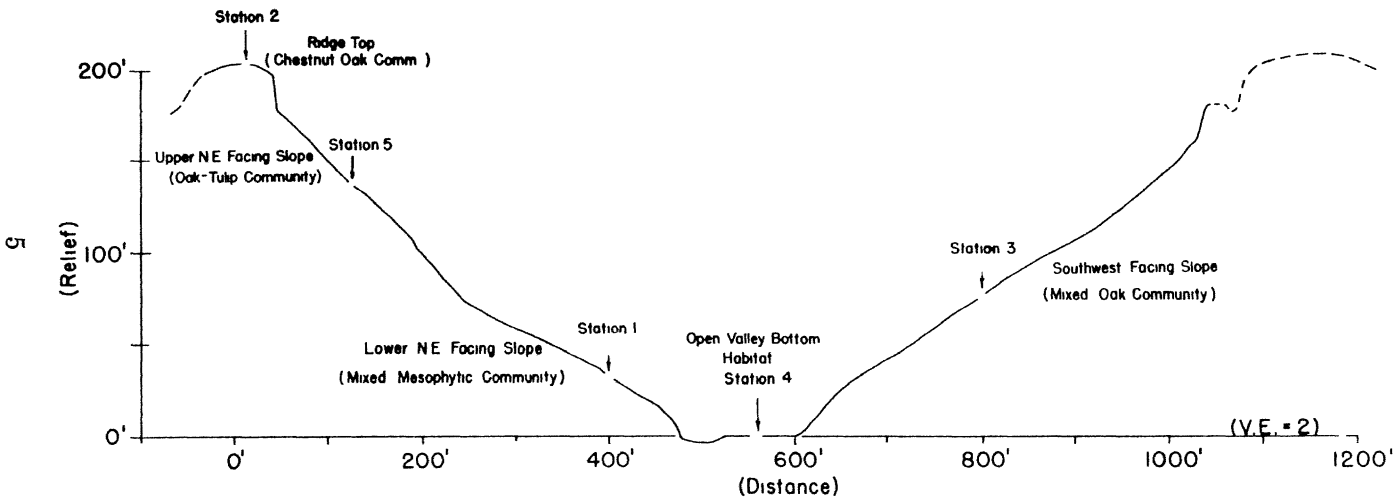

Fig. 2. Cross section of central portion of Neotoma indicating distribution of vegetation types and location of permanent study areas (distance and relief in feet).

DISCUSSION

Radial growth of ring-porous woody species is usually characterized by two periods of growth referred to as period of earlywood growth and period of latewood growth. Earlywood growth of ring-porous species usually begins during early spring prior to radial growth of diffuse-porous species, the total growth period of the latter generally corresponding in time to the latewood growth period of the former (Phipps, 1960). Time of radial growth initiation of diffuse-porous species is also usually less pronounced than that of ring-porous species. Both types continue radial growth at decreasing rates until mid- or late-summer.

Changes in woody stem radii are brought about not only by cell division and enlargement but also by numerous factors included within the environmental complex. For example, any environmental factor, or combination of factors, affecting the internal water content of woody stems will indirectly affect stem width since stem radii vary with changes in water content (Koch, 1960). Consequently, it is frequently difficult to determine the exact time of radial growth initiation and cessation.

Also, environmental factors, especially a decrease in available soil water, apparently retard radial growth during late summer and may result in cessation of radial growth. Internal water stresses appear to be sufficient at this time of year to affect radial change by physical shrinkage as well as greatly retarding or terminating cell division and/or enlargement. Replenishment of soil water during late summer may extend the period of growth beyond the time at which growth ceases when soil water is not appreciably low. Replenishment of soil water during late fall or early winter is a major factor resulting in rehydration of internal stem tissues which in turn usually results in an increase in stem radii to values greater than those attained at time of growth cessation. In light of the above it appears that growth initiation (as determined by radii measurements) may easily be confused with rehydration of internal stem tissues immediately prior to radial growth initiation. This may be especially true with diffuse-porous individuals in which radial growth begins slowly.

Initial analysis of the data included herein has been completed, the results of which are included within the manuscript of Neotoma Special Report No. 3.

ACKNOWLEDGMENTS

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Power Company for extension of electrical service into the study area, and to the United States Atomic Energy Commission for its financial support of the Neotoma basic research program.

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Gilbert, Gareth E. 1961. The Neotoma ecological and bioclimatic research program as of 1961. Special Report No. 1.

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Table 1.
Information concerning woody individuals included within radial growth investigations.

Species	Indiv. No.	DBH (in.)	Date Measurement Initiated	Date Measurement Terminated	Growth Seasons
Ash, White	1-3	8.7	2/22/55	9/29/60	6
Fraxinus americana[3] L.					
Aspen, Large-toothed	1-11	11.4	2/22/55	9/29/60	6
Populus grandidentata Michx.	3-12	9.6	4/8/58	9/29/60	3
Beech	1-1	20.6	2/22/55	9/29/60	6
Fagus grandifolia Ehrh.	1-14	16.9	5/19/59	9/29/60	2
	2-1	5.4	5/4/58	9/29/60	3
	3-7	12.8	4/8/58	9/29/60	3
Birch, Sweet	1-13	6.3	4/8/58	9/29/60	2
Betula lenta L.	2-2	6.0	4/5/58	9/29/60	3
Butternut	1-2	12.4	2/22/55	9/29/60	6
Juglans cinerea L.					
Cherry, Black	1-8	10.9	2/22/55	5/31/60	5
Prunus serotina Ehrh.					
Cherry, Sweet[4]	1-10	8.6	2/22/55	9/29/60	6
P. avium L.					
Chestnut[5]	2-9	11.6	4/5/58	3/11/59	1
Castanea dentata (Marsh.) Borkh.	2-10	—	8/14/58	5/31/60	1
Hickory, Mockernut	3-2	12.3	3/1/55	9/29/60	6
Carya tomentosa Nutt.	3-8	8.1	4/8/58	9/29/60	3
	3-13	12.1	4/26/58	9/29/60	3
Maple, Red	1-5	13.4	2/22/55	9/29/60	6
Acer rubrum L.	2-6	3.8	12/17/57	9/29/60	3
	3-6	5.3	8/6/57	9/29/60	3
	3-9	14.6	4/8/58	9/29/60	3
Maple, Sugar-	1-12	5.7	3/17/59	9/29/60	2
A. saccharum Marsh.					
Oak, Black	2-3	11.0	4/5/58	9/29/60	3
Quercus velutina Lam.					
Oak, Chestnut-	1-7	10.5	2/22/55	9/29/60	6
Q. prinus L.	2-5	3.8	4/5/58	9/29/60	3
	2-8	13.1	12/17/57	9/29/60	3
	2-11	8.4	12/17/57	9/29/60	3
	3-1	18.0	3/8/55	9/29/60	6

Table 1 (Continued)
Information concerning woody individuals included within radial growth investigations.

Species	Indiv. No.	DBH (in.)	Date Measurement Initiated	Date Measurement Terminated	Growth Seasons
Oak, Red	1-4	11.1	2/22/55	9/29/60	6
Q. rubra L.					
Oak, Scarlet	2-4	11.9	4/5/58	9/29/60	3
Q. coccinea Muenchh.	3-4	11.0	3/1/55	9/29/60	6
	3-14	8.0	3/17/59	7/26/60	1
Oak, White	1-6	13.9	2/22/55	9/29/60	6
Q. alba L.	3-3	12.5	3/1/55	9/29/60	6
	3-11	18.1	4/8/58	9/29/60	3
Pine, Pitch-	2-7	7.7	12/17/57	9/29/60	3
Pinus rigida Mill.	3-10	8.9	4/8/58	9/29/60	3
Sassafras, White	1-15	6.1	6/23/59	9/29/60	2
Sassafras albidum (Nutt.) Nees					
Sourwood	2-12	5.6	4/5/58	9/29/60	3
Oxydendrum arboreum (L.) DC.	3-5	7.1	3/8/55	9/29/60	6
Tulip-tree	1-9	16.1	2/22/55	9/8/59	5
Liriodendron tulipifera L.					

3 Nomenclature that of Gray's Manual of Botany (with exception of capitalization of specific epithets), 8th edition (Fernald, 1950).

4 Died between 1959 and 1960 growth seasons.

5 Died approximately 1943; 2-9 south side of stem; 2-10 north side of same stem.

Table 2a.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Mesophytic community individuals during 1955.

Date	Beech 1-1	Butter-nut 1-2	Wht. Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht. Oak 1-6	Chest. Oak 1-7	Blk. Cherry 1-8	Tulip-tree 1-9	Swt. Cherry 1-10	Lg.-t. Aspen 1-11
3/8	0	—2	0	—2	0	—2½	—1	—1½	0	0	—4
3/15	0	—1	—3	—3	—1	—2	—1	—2	—2	—1	0
3/22	0	0	—3½	—1	—2	—1	0	0	—1	0	0
3/29	0	—2	—5	0	—4	0	—1	0	—5	—1	—1
4/5	0	—2	—5	0	—5	—4	—1	—1	—6	0	—2
4/12	0	—1	—3	0	—3	—1	2	—1	—4	—1	—2
4/19	1	0	3	6	0	4	13	2½	—6	2	0
4/26	5	0	10	16	4½	14	23½	7	—3	3	1
5/3	7	—2	12	25	7	18	28	12	—5	2	2
5/10	12	1½	19	36	24	25	36½	23½	1½	7	5
5/17	16	4	24	42	38	29	44	36	10	10	10
5/24	21	8	34	48½	58	34½	53	50	20½	12	15
6/1	29	12½	45½	55½	72	41	65	62½	36	13	26
6/7	—	—	—	—	—	—	—	—	—	—	—
6/14	45½	20½	65½	73	77½	55½	88½	79	60	14½	48
6/28	83	28	75	97	124	72	116	96	91	13	67
7/5	109	31	79	113	140	83	131	103	111	12	73
7/12	123	39	82½	130½	157½	96	151	119	129½	12	77½
7/19	146½	42	83	149½	180½	105½	171	129½	150	11½	77½
7/26	178	47	84	166	195	115	188	138	172	12	80
8/2	207	52	84	175	208	121	203½	144½	195½	0	77
8/9	241	55	83½	186½	216	126½	214½	148	215½	9½	77

Table 2a (Continued)
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Mesophytic community individuals during 1955.

Date	Beech 1-1	Butter-nut 1-2	Wht. Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht. Oak 1-6	Chest. Oak 1-7	Blk. Cherry 1-8	Tulip-tree 1-9	Swt. Cherry 1-10	Lg.-t. Aspen 1-11
8/16	268½	57	81	191½	220	131½	220	150½	232	8	76½
8/23	296½	62½	85	199½	225	139	221	156½	250	0	76½
8/30	321½	62	84½	202½	223	138½	221	156	255	9	74½
9/5	337	57	83	203	221	138	226	154½	254½	8	74
9/13	349½	58½	77½	—	218½	136½	225½	153½	254½	6	74½
9/20	358	57	74	204	218	137	226	154	254	5½	74½
9/27	364	62	81	206	222½	139	230½	158	258	10	76
10/4	364	61	83	205½	224½	140½	231	157½	257½	9½	75½
10/11	364½	62	84	205	224½	141	231	158	259	9	76
10/17	365	62	84½	205½	227	141	232	164	262	6½	76½
10/25	364½	62	83½	206	225	140½	231	158	257½	10	78
11/1	364	60½	81	205½	222½	139	230½	157½	257	10	76
11/8	363½	60	83½	207	223	139	231	158½	257	11½	80
11/15	364½	63	84	208	226	141	232	160½	261½	13	78½
11/22	364½	64	85	208½	226	142½	233	161½	261	12½	78
11/29	358	46½	60½	203	214	132	219½	155½	239½	2	60
12/6	364½	60½	68	209½	224	142	232	159½	259	5½	72
12/13	359	48½	58	204½	213	133	221½	156	237	1	56
12/20	356½	36½	55	203	211	132	218	155½	234½	—1	55½
12/27	364	59½	65½	209	224	141½	230	159	257	3½	72

Table 2b.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Mesophytic community individuals during 1956.

Date	Beech 1-1	Butter-nut 1-2	Wht. Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht. Oak 1-6	Chest. Oak 1-7	Blk. Cherry 1-8	Tulip-tree 1-9	Swt. Cherry 1-10	Lg.-t. Aspen 1-11
1/3	½	1	3	½	2	1½	1½	—1	—2½	1	—2
1/11	2½	1½	4	½	—2	2	3	1	—½	2½	1
1/17	½	—3½	—2	½	—3	½	0	—1½	—14	½	—15
1/24	—5	—21½	—23½	—4	—11	—7½	—11½	—6½	—27½	—12	—22
1/31	—1	—7	—15	—½	—4½	—2½	—2	—4½	—12½	—7	—11
2/7	3	3	5½	2	5½	4½	4	1½	½	2½	7
2/14	3½	2	5½	3½	5	4½	3½	½	—½	2½	1½
2/21	4	2½	5	2	4	4½	4	0	½	3½	2
2/28	4	3½	—4½	3	5	4	3½	1	0	1	½
3/6	4	3	5½	2½	3½	2	2½	—½	—1	2	1
3/13	4	3½	4½	2½	3	2	2	—½	—2	2½	1½
3/20	5	3½	6	3½	3	3½	3½	½	—2	3	2
3/27	4	2½	—23½	—	3	2	2½	0	—3	2	1
4/3	3½	4	5½	2½	5	4	4½	0	0	2	1
4/10	3½	3	4½	3½	2½	2	4½	—1	—2½	2½	1
4/17	4½	5	8	7½	5	5½	7½	1	0	3½	1½
4/24	5½	4	7	10½	5½	4½	10½	½	½	2½	1½
5/1	10	3	13	24	4	11½	23½	0	—2½	2	½
5/5	13	3	16½	29½	5½	17	28½	1	—2½	1	1
5/12	24	2	26	45½	16	28	43½	7	1	½	1
5/21	37	3½	34	60½	31	37½	54½	17	5	2	2½
5/30	48	8	49	71½	56	49	67	36	20	3½	5½
6/5	59	9	52½	81	67	50	71	41½	24½	3	7
6/12	73	13	58	93½	73½	55	77	51	36	3	11

6/19	74½	21	76	105	83	65½	96	68	55	5½	23
6/26	89	25	80	114	91½	71	106	79	68	4½	29
7/3	107½	32	85	125½	102½	80	116	92	82½	4½	35
7/10	120	35	83	135	113	84	123	101	93½	2½	38
7/17	141½	39	84½	145	127½	89½	130	110	109½	2½	42½
7/24	165½	46	84	155	139½	94	136	118	110	2½	44½
7/31	179	50	85½	161½	147	97½	139	117½	----	1½	45
8/7	200½	53	83	161½	152	98½	140	124	110	½	43½
8/14	227	56	84	168½	158½	100	142	129	124	½	44½
8/21	244½	59	83½	170½	161½	100½	141½	129	134	½	45
8/28	263½	57	81	170	159½	100	140	129	136½	0	44½
9/4	277½	57	81½	170	159½	99½	141½	128	137½	—½	43½
9/11	291½	57	81	171	159½	99½	141½	127½	137½	—½	44
9/18	299½	56½	81	170	160½	99½	141	125	139½	—½	44
9/25	299½	56	80	169	159½	97½	139	124	134	—1½	44
10/2	302	57	80½	170	159½	98½	141	126½	132½	—1	44½
10/9	299½	58	81½	170½	161	98½	140	125½	133	—½	44½
10/16	299½	56	78½	170	160	98	139	126½	135	—1	42½
10/23	304	58	78	171½	162	99½	140	128	134½	1½	43½
10/30	301	58	76	172	162	98½	140	127½	137	2½	43½
11/6	300½	57½	75½	172	159½	98	140	126½	137½	1½	44
11/13	299½	57	74	172½	159	98½	139½	126½	137	1½	43
11/20	305	59½	80½	174	160	100	142	128½	135	8	45
11/27	303	58	78	173½	159½	100	142	127	138½	3½	40½
12/4	303½	59½	81	174	161½	100½	142	128	137½	3½	44½
12/11	309	65	85	177	165	104	145½	130	147	7½	49½
12/18	306½	65½	86	176½	166	105	146	130	146½	7	49½
12/24	308½	65½	86	177	165½	105	147	129	147	6½	49½
12/31	307	65	84½	175½	165½	103	146	128½	145	5½	49

Table 2c.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for the Mixed Mesophytic community during 1957.

Date	Beech 1-1	Butter-nut 1-2	Wht. Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht Oak 1-6	Chest Oak 1-7	Blk Cherry 1-8	Tulip tree 1-9	Swt Cherry 1-10	Lg -t Aspen 1-11
1/8	—6½	—11½	—23½	—4	—12½	—9	9½	—2½	—18½	—10	—19
1/16	—14	—40	—42½	—10½	—20	—16	—21½	—4	—45½	—20	—30
1/22	—2	—3½	—3½	—2½	—3½	—2½	—3	0	—4½	—3½	—3½
1/29	—1½	—½	9½	—6	—2½	—2½	—13	9	—3½	—3½	—3
2/2	—1½	—½	—2	—2	—2	—1½	—2	—1	—3½	—4	—2
2/5	—2½	—3	—2	—2	—2½	—2	—13½	11	—4	1	—2
2/12	—1½	—½	—12	—1½	—2	—1½	—2½	—1½	—5	—3	—1
2/19	—4½	—2½	—2½	—3	—2½	—4	—4	—2	—8	—3	—1½
2/26	½	—1	—3	—1½	—2	—4½	—4	—2	—8½	—2	—3
3/5	—3½	—½	—2½	—2	—1½	—2½	—2½	—1½	—6½	—2	—2
3/12	—2½	—1	—3½	—1½	—1½	—3½	—2½	—2	—8	—1½	—2
3/19	2	½	—5	0	—1½	—2	—3½	—½	—5½	—½	—1
3/26	3	1½	—4	1	—1½	—1½	—1	—½	—2	—½	—1
4/2	2½	1½	—1	½	—½	—½	—3	—½	—2½	—1½	—2½
4/9	—½	3½	—1	0	½	—½	—½	0	—4	—1½	—1
4/16	3	1½	—2	2½	—1½	—2	—1	0	—7½	—½	—1½
4/23	2½	2½	3½	12	2	4½	14½	0	—6	—2	—2
4/30	12½	2	14½	32½	7½	21	35	3	—7½	—2	—2½
5/7	18½	2	18	39	15	25	40½	6	—6½	—1½	—1½
5/21	42½	8	40½	56½	51½	38½	58½	30½	5½	1	3
5/29	54½	10½	51	62	64½	40½	65½	38½	14	1	5
6/4	67	12½	59½	66½	73½	45	74	47½	21½	½	9½
6/11	78½	14½	69½	74	86	54	86½	56½	32½	0	17½

6/18	—	18	74	79	—	62	96	66	41½	—1	23½
6/25	98½	24½	79	84	103	68½	106	75	52½	—1	29
7/2	107½	27½	79	88½	106½	72	113	83½	61½	—1½	32½
7/9	120	30½	79	92½	111½	77	120½	95½	55½	—2½	34½
7/16	129½	31½	77½	95	113½	81½	126	101½	62½	—3½	34½
7/23	147½	52½	84	103	122½	94	138	111½	81½	½	41½
7/30	158½	67	87	103	124	98	145½	114	82	—1½	38½
8/6	169	67½	86	104	125	101	143	117½	82	—1	37½
8/13	180½	67	84	104	124	101½	143	117	82	—2	39
8/20	180½	66½	81½	104	122	102	143	117	82	—2	38½
8/27	184½	65½	81½	104	121	102½	143	117½	88	—3½	38
9/3	187	68½	84	105½	124	103½	146	122	96	—1½	37½
9/10	188	68½	84½	106	126	104	146½	123½	95	—½	40
9/17	184	69½	85	105	130½	105½	146	122½	97	—1	41½
9/24	184½	70½	86	105½	132½	106½	147	123	96	—½	42½
10/1	185	68½	86½	105½	129½	104	145	123	94	—1½	40½
10/8	184	69½	83½	105½	128	103½	144½	123	93	—2	40½
10/15	183	68	82½	105½	126½	103	144	122½	92½	—2½	39½
10/22	184	67	82½	105½	127	104	145	124	93½	—1½	39½
10/29	184	68	83	106½	126½	105½	146	123	96½	½	41
11/12	183	69	82½	106	126½	104	144½	123	96	0	41
11/19	186	70½	84	107	129	105½	156½	125	100½	1	41½
11/26	184	68	85	106½	127	103½	155	123½	97	½	40
12/3	185½	68	78½	107	127½	103½	146	124½	98	½	40½
12/10	185	69½	82½	107	123½	106	156	115	99½	½	39½
12/17	186	63½	82½	106½	129	105	146½	124½	96½	½	39
12/24	185	66½	81	106	130½	105	145	124	97½	½	40½
12/31	185	67	80½	106	130	105	146½	124	98	0	41

Table 2d.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for the Mixed Mesophytic community during 1958.

Date	Beech 1-1	Butter-nut 1-2	Wht Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht. Oak 1-6	Chest. Oak 1-7	Blk. Cherry 1-8	Tulip-tree 1-9	Swt. Cherry 1-10	Lg.-t. Aspen 1-11
1/7	—6½	—10½	—27	—2½	—11½	—7½	—15	—2	—13½	—10½	—16
1/14	—2½	—7	—7½	—2	—5	—2½	—10	1½	—4½	—1½	—2
1/21	—2	—5	—11	—2	—5	—3½	—10	1	—4½	—1½	—1½
1/28	—3	—6	—9	—½	—3	9	—9½	2½	—1	—1	—1
2/4	—6½	—13	—25	—2	—16	—7	—18½	—2	—22½	—5	—
2/11	—13	—44	—47	—8	—20	—14	—28	—6	—37	—17	—29
2/18	—15	—50	—53	—10	—26½	—18½	—34½	—8	—47½	—20½	—35
2/25	—5½	—10	—9½	—2½	—5½	—4	—12	—½	—7½	—2½	—6
3/4	—4½	—7	—8½	—1½	—5	—3	—11½	0	—6	—2½	—2
3/8	—6	—7½	—10½	—2	—5½	—4½	—12½	—½	—8½	8	—2
3/11	—4	—6	—10½	—27½	—3½	—3	—10½	½	—7	10	0
3/18	—3	—6½	—10½	—27	—3½	—3	—10½	1	—6	10	½
3/25	—1	—4	—10	—27	—3½	—3	—9½	1½	—4	11	1½
4/1	—1	—3	—9	—½	—2½	—2½	—9	2½	0	11½	3
4/8	0	—3	—9½	—½	—3½	—2	—9	2½	½	12	3
4/15	—½	—5	—8½	½	—3½	—2	—8½	2	—1½	11½	1½
4/22	1½	—1	—2½	10	—2	4	1½	3½	3	13½	2½
4/29	3	—1½	5	17	1	13	13½	6½	3½	15½	4
5/8	5½	1	13	23½	4½	20½	25½	8½	6½	15½	6
5/13	8	—1	13½	19½	5½	24	32	10	3	15½	5
5/20	15	—½	20½	27	21½	30½	43½	19	6½	16½	6
5/27	20	0	27	30½	34½	33½	51	27	11½	16	9
6/3	24	2	36½	35	50	38½	52½	41	20	17½	14½
6/10	31½	8	52	39½	68	47	63	58	36	19	26½

6/17	41½	11½	60	43	72	53½	71½	67	53	19½	37
6/26	—	—	69	49½	87½	60½	84	80	72	16½	48
7/3	62½	13½	68	54	98	65½	90½	86	86	20½	60
7/10	72½	19	75½	59½	109½	74½	105	99½	107½	18	73
7/17	80½	22½	79	63	111	77½	117	108½	129	24½	81
7/24	88	24½	82	66	113	80½	126	116½	147	25½	86½
7/31	103	25	81½	70	117	85½	131	122	158½	25½	90
8/7	115	24	79½	73	117½	87	134	124½	168½	25	89
8/14	127½	23½	81	76½	119	89½	137½	132	176½	26	91
8/21	140½	22	79½	77½	118½	90	138	135½	184½	25½	90½
8/28	148½	23	81½	78	120	91	138	138½	190	26	91½
9/4	156½	23½	81½	78	119½	91	139	139½	189½	25½	91½
9/11	159½	21½	79½	78½	119	90½	138	139	—	26	91
9/18	160	24½	82½	79	120½	92½	140	141	192½	27	92
9/25	160	24½	83	78½	120½	92½	140	140½	193	26	92
10/1	160	24	82½	79	121	92	139	140½	192½	26	92
10/7	159	23	80	78	119	90½	137½	139½	189½	26	91½
10/15	159	22½	80	78½	119	85½	137½	139	188½	25½	91
10/21	158½	21	78	78	118	90	136½	138	188½	26	90½
10/28	159½	22½	78½	79	119½	91	138	140½	190½	27½	90½
11/4	159½	21	77½	78½	118½	90½	137½	140	190	27	90
11/12	159½	20	76½	78½	118½	89½	136½	139½	189	26½	89
11/19	160½	22½	75½	78½	119	91	137	140	192	27½	90
11/25	161	20½	78	79	118	90½	137	138½	191	27	89
12/3	161	20½	76½	79½	117½	90½	137	139	186	26½	87
12/9	156½	—34½	46½	75	102½	82	118	125	170½	10½	60
12/17	165½	17	80½	81½	119½	100	140	129½	201	28	87½
12/23	164½	16	81	81½	120	94½	138½	129½	206½	27½	87½
12/30	165	16½	82	82	121	95½	139½	130½	206½	27	88

Table 2e.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Mesophytic community individuals during 1959.

Date	Beech 1-1	Butter-nut 1-2	Wht. Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht. Oak 1-6	Chest. Oak 1-7
1/7	—2½	—19	—21	—1	—12½	—11½	—12½
1/13	—1	—10	—2	—1	—2	—5	—1½
1/22	—3½	—23½	—28½	—2½	—8½	—10	—8½
1/27	—½	—10	—21	—½	—4	—6	—5½
2/3	—½	—12	—1	—½	—3½	—4½	—1½
2/10	½	—12	2	0	1½	—2½	2
2/17	0	—9½	1½	0	2	—2	1½
2/24	0	1	½	½	7	—3	1½
3/3	½	—½	½	½	3½	—2	1
3/11	1	1	0	1	4½	—2½	1½
3/17	1	—1	0	1	4½	2	1½
3/24	½	—3	—1½	0	2½	1	0
3/31	1½	—1½	—2	0	4	2	2
4/7	1	—2	—2½	½	3½	2½	2
4/14	1½	0	0	2	5½	4	6
4/21	2½	½	5	7	7	8½	15
4/28	4½	2	—	15½	9½	15½	26½
5/5	8	0	19	28	16½	—	40½
5/12	17	5	28½	37	33½	32	54
5/19	20	4	30	39	39	32½	56
5/28	36	9	47½	46	65	39	63½
6/2	46	13½	63	50½	75	45	70
6/9	56	13½	71	53	80	48½	73
6/16	68½	20½	85	58½	88½	56½	82½
6/23	80½	24½	91½	63½	96	63	90
6/30	95	29	96	70	103½	69½	98
7/7	106	33½	99	74½	109	73½	103½
7/14	115	34	96½	76½	108½	75½	103½
7/21	126½	39½	106	81½	113½	80½	111½
7/28	139½	44½	110	86½	116½	84½	117½
8/4	150	44	110½	90½	116½	85½	118½
8/11	156½	42	108½	90½	115	85	116½
8/18	162	44½	111	92½	118	87½	120
8/26	163	43	108½	93	117	86½	119
9/3	164	45½	111½	93	120½	86½	119
9/8	163	42	107½	91	115½	84½	115
9/15	162½	40	103½	91	112½	83½	114
9/23	163	41	103½	91	112½	84	114
9/29	162½	40½	104	90½	110½	83½	114

Date	Beech 1-1	Butter-nut 1-2	Wht. Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht. Oak 1-6	Chest. Oak 1-7
10/6	165	48	110½	94	119	88	120
10/13	164½	48½	111½	94	119	87½	118½
10/27	166	49	111	94½	118½	89	120
11/3	164½	46	110½	94	117	87	118½
11/10	163	47½	108½	93	116½	85	116
11/17	164	45	107½	91½	112½	83½	113
11/24	164	48	109	94	115½	86½	117
12/1	164	50	108½	93	116½	86½	117
12/8	165	51	103	93½	116½	87	118
12/15	164½	52	108	94	117½	87½	118

Date	Blk. Cherry 1-8	Tulip-tree 1-9	Swt. Cherry 1-10	Lg.-t. Aspen 1-11	Sugar-Maple 1-12	Sweet Birch 1-13	Beech 1-14	Wht. Sassafras 1-15
1/7	—12	—20½	—2	—21				
1/13	—11	½	—1½	—5½				
1/22	—11½	—9½	—13	—21				
1/27	—13½	1	—11	14				
2/3	—10½	—15½	—1	—8½				
2/10	—8½	2	—1	—6				
2/17	—8½	4	—1½	—4				
2/24	—8	4½	—½	—4½				
3/3	—7½	4	0	—4½				
3/11	—7	5	0	—2½				
3/17	—7	5	0	—2½	0			
3/24	—6½	3	—2	—3	—½			
3/31	—4	8	—1	—2½	½			
4/7	—3½	7	—1	—2	—			
4/14	—1½	9	0	—2	1½			
4/21	1½	14	1½	—2	—			
4/28	4	16½	3	—1	4	0		
5/5	8	11½	3½	—½	4½	1		
5/12	21½	22	8	3	10½	3½		
5/19	26	21	7	4½	14½	3½	0	
5/28	47½	35	9½	13	31	11½	10	
6/2	58½	44	11	21	39	15½	18½	
6/9	63½	48	8½	25	45½	19	—	
6/16	72½	59½	9½	33	57½	24½	3½	
6/23	83½	74½	10	41	79	33½	55½	5
6/30	93½	100	9½	49½	64½	28½	44	0
7/7	102½	127½	9	54½	91½	36	64½	9½
7/14	106½	148½	6½	56	98½	38	70½	11

Date	Blk. Cherry 1-8	Tulip-tree 1-9	Swt. Cherry 1-10	Lg.-t. Aspen 1-11	Sugar-Maple 1-12	Sweet Birch 1-13	Beech 1-14	Wht. Sassafras 1-15
7/21	117½	178½	9	63½	106½	39½	77½	17½
7/28	130	211½	—2½	67½	114	41½	84½	21½
8/4	134	236	—7½	67½	124½	41½	89½	21½
8/11	136	251	—9	66	127	40½	91	19
8/18	143	272	—9	67½	131½	41	92½	21½
8/26	142	281½	—9	67½	131	41	93	19½
9/3	146½	293½	—8	68	133	40½	93	20½
9/8	143½	303	—12½	67	131½	40	92½	17
9/15	143	—	—9	67	130½	40	92½	15½
9/23	143½	—	—9½	67	130½	40	92½	16
9/29	143	—	—10	66½	129	40	92½	15
10/6	149½	—	—8½	67½	133	41½	94	19
10/13	148½	—	—8	67	133	41½	94½	19
10/27	155½	—	—7½	67	133½	41½	95	19½
11/3	149	—	—7	67	136	41½	95	18
11/10	148½	—	—6½	66	133½	42½	95½	19½
11/17	147	—	—10½	56	133	38½	95½	15
11/24	149½	—	—	65	134½	11½	95½	20
12/1	151	—	—	65	134½	11½	96½	20½
12/8	153	—	—	66	134	12½	96½	21
12/15	153	—	—3	67	135	43½	96½	22½

Table 2f.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Mesophytic community individuals during 1960.

Date	Beech 1-1	Butter-nut 1-2	Wht. Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht. Oak 1-6	Chestnut Oak 1-7
1/6	—2	—7	—15½	—½	—5	—2½	—2
1/13	—1	0	—6½	—½	—1	—2	0
1/19	—½	2½	—11	—1½	—1	0	½
1/26	—8	5	—14	—6½	—4	—6½	—7½
2/2	—7½	6	—23	—6	—3	—6½	—6
2/9	—7	5½	—13½	—5½	—2	—5	—6
2/16	—9½	—2½	—33	—8	—17	—13½	—20½
2/23	—10	—8	—35	—8	—19½	—14½	—13½
3/1	—12	—11	—39	—9½	—19	—16½	—21½
3/8	—12	—21½	—44	—10	—26½	—20	—29
3/15	—10½	—1	—13	—9	—12	—10	—15
3/22	—9	2½	—14	—6½	—10	—8½	—11
3/29	—9	—½	—15	—6½	—7	—7½	—9
4/5	—7½	5	—14	—6½	—5	—6½	—8
4/12	—9	3	—14½	—7	—8	—8	—10
4/19	—8½	4	—10½	—1½	—7½	—6	—3
4/26	—8	4	1	14½	18	3½	15
5/3	—6½	5	7	20½	—1½	8	23½
5/10	—1	7½	13½	27	8	13	34
5/17	1	7½	17½	28½	13	12½	38½
5/24	10	9	27½	33½	25	16½	46½
5/31	20	10½	41½	36	36½	20	53
6/4	26	10½	46	38	42	20½	54½
6/7	31	12½	52½	39	48	22	57½
6/14	44	18	66	44	62	29½	67
6/21	53	20	73	48	70	32½	71½
6/28	61½	23	75	49½	76½	35½	74½
7/5	72	27½	78	53	85	40	79
7/12	81½	30	79½	56½	90½	43½	82
7/19	—	34	83	61	97½	49½	88½
7/26	—	37	82½	63½	99	52	89½
8/2	—	42	85½	66½	100	55½	91½
8/9	—	47	84½	70	102	58½	93
8/16	132	52	86	72½	103	59	93½
8/23	139	58	86	73½	103	59½	93
8/30	148½	63	88	74½	103	61½	94

Table 2f (Continued)
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Mesophytic community individuals during 1960.

Date	Beech 1-1	Butter-nut 1-2	Wht. Ash 1-3	Red Oak 1-4	Red Maple 1-5	Wht. Oak 1-6	Chestnut Oak 1-7
9/6	157½	66½	86	74	101	59½	92½
9/16	165½	67	87½	74½	104	61½	94
9/20	167	67½	87½	75	104½	61½	95
9/29	166½	67½	87	74	102	59½	93

Date	Blk. Cherry 1-8	Swt. Cherry 1-10	Lg.-t. Aspen 1-11	Sugar Maple 1-12	Swt. Birch 1-13	Beech 1-14	White Sassafras 1-15
1/6	—3½	—1½	—6	—2	½	½	—2
1/13	—1½	—1½	0	—1	1	½	—1
1/19	—1	4½	—½	0	1½	1	1
1/26	—4½	—1	—4½	1	5½	4½	8
2/2	—2½	4½	—3½	0	5½	5	8
2/9	—1½	1½	—3	1½	6	5½	9
2/16	—6	3½	—22½	—1	5	3½	5½
2/23	—6½	3½	—25½	—1½	—2½	—3½	6
3/1	—7½	3	—26½	—2½	3	2½	2½
3/8	—10	1½	—31½	—2½	4	2½	2½
3/15	—4½	—1	—14	—1	6	4	4
3/22	—4	—1	—6½	—2½	6½	4½	6
3/29	—4½	—1½	—6½	—1	6½	4	5½
4/5	—4	—1	—3½	0	3½	4½	7½
4/12	—5½	—1½	—4½	—1	3	4	5½
4/19	—5½	—1½	—4½	—½	3½	5	—
4/26	—2	—2½	—5½	½	5	4½	4½
5/3	2½	—2	—3½	½	6½	6	12½
5/10	12	—½	—1½	3½	8½	10	17½
5/17	17½	—½	—1½	4	9	12	19½
5/24	37½	—½	—½	13½	15	21	24½
5/31	58½	0	1	25	23	33	30½
6/4		—1	1½	32½	27	40	32
6/7		—1	3½	37	31	46	34
6/14		0	3	47½	39½	59	41½
6/21		—½	21	55	47	70½	43½
6/28		—2	23½	60½	51	79	47½
7/5		—2	27½	68½	58	91	53½
7/12		—2	30½	76	59½	100½	60

Date	Blk. Cherry 1-8	Swt. Cherry 1-10	Lg.-t. Aspen 1-11	Sugar Maple 1-12	Swt. Birch 1-13	Beech 1-14	White Sassafras 1-15
7/19		—1	34		63	111	65½
7/26		—2	32½		64½	120	69
8/2		—2½	34		65	128	72½
8/9		—2	34		65	135½	75½
8/16		—2	34½		64½	142½	76
8/23		—3	33½		64	147	75½
8/30		—2½	35½		65	151	77
9/6		—5½	33½		64	151	72½
9/16		—5½	35½		63½	152½	75½
9/20		—5½	35½		65	153	76½
9/29		—6	34½		64½	152	73½

Table 3a.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for the Chestnut Oak community individuals during 1958.

Date	Beech 2-1	Sweet Birch 2-2	Black Oak 2-3	Scarlet Oak 2-4	Red Maple 2-6	Pitch-Pine 2-7	Chest. Oak 2-8	Chest. 2-9	Sour-wood 2-12	Chest. Oak 2-11
1/7					—6½	—5½	—10			—5
1/14					0	½	—7½			—2
1/21					0	—5½	—7			—½
1/28					—13½	13½	7			7
2/4					4½	22	21			23
2/11					—5½	21	13			16½
2/18					—12½	15½	4			13
2/25					5	14½	22			22
3/4					6	18½	23			23½
3/8										
3/11					5	20	21½			21½
3/18					5½	19	20½			22
3/25					6	16½	9			23½
4/1					5½	13	9			23½
4/8	½	2	1	12	6½	11½	11	4	9½	40
4/15	½	3	—5½	13	6½	5	11	4	8½	46
4/22	0	1½	5	23½	6½	8	19½	3½	5½	57
4/26	—½	1	5½	27	8½	6	22½	2	8½	61
4/29	—½	12	15	37½	10½	22½	29½	14	18½	70
5/8	2½	15½	18	48½	10½	24½	35½	15	17½	74½
5/13	5	18	17½	51½	13	16	37½	11½	15	78
5/20	11½	27	21	57½	17½	20	41½	10½	17½	85
5/27	17½	35	22½	63½	21	26	44½	11½	19½	93

6/3	24	43	25	71½	27	29½	55	9½	22½	108
6/10	32½	56	33	83½	34½	43½	72	13	31	—
6/17	40	56	34½	93	38½	42½	84	14½	30½	—
6/26	51½	53	40½	103½	44	52	99½	15	38½	164
7/3	63½	57	40½	110	46	46½	109½	11	37½	180
7/10	72	64½	47½	124	48	54½	124½	14½	43	201
7/17	79½	73½	51½	136	49	62½	135½	17½	45½	218
7/24	86½	80½	54	144	50½	68½	146½	19½	51	230
7/31	95	87	51½	149½	51½	63	140	17	51	235
8/7	99	87½	50½	152	51	61½	142	15½	49½	237
8/14	102½	94½	51½	156	52	65	146	15	51½	240
8/21	103½	96½	51	155½	53	62	146½	14½	51½	245½
8/28	105½	101	53½	160	54	71	152	12	54½	248½
9/4	104½	99½	49½	159½	54½	72	151½	16	53½	250½
9/11	105	100	49	158½	55½	72	151	16	53	251
9/18	105	109½	51½	160	56½	81½	152½	17½	57½	256½
9/25	104½	101½	50½	161	56½	76	153½	17	54	252½
10/1	105	103	51½	161	57	75½	153	17	54	256
10/7	104½	101	47	159½	56	70½	151½	15½	52	251
10/15	104½	100½	45½	159	56½	69½	149½	14½	51	251
10/21	104½	100½	45½	158½	56½	71	149½	14½	51	251
10/28	104½	105½	50½	161	57	79½	151	15	54	257½
11/4	105	104	48½	161	57	75	150½	14½	53½	253½
11/12	105	102½	48½	159	59½	74	150½	14½	51½	253
11/19	105	104½	48½	159½	57	72	151	15½	52½	256½
11/25	105½	103½	48½	159½	57	73	150½	15½	52½	254
12/3	105	104½	48½	159	59	80	150½	15½	54	254
12/9	102½	94½	40½	147½	44	74	134½	17½	40½	241
12/17	105½	103½	49	159½	58½	80½	151	16	53	256
12/23	105½	105	48½	159	59	75½	150½	16½	52½	257
12/30	106	105	50½	159½	59	74½	150½	17	54	256½

Table 3b.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Chestnut Oak community individuals during 1959.

Date	Beech 2-1	Sweet Birch 2-2	Black Oak 2-3	Scarlet Oak 2-4	Chestnut Oak 2-5	Red Maple 2-6	Pitch-Pine 2-7	Chestnut Oak 2-8	Chestnut Oak 2-9	Chestnut Oak 2-10	Chestnut Oak 2-11	Sour-wood 2-12
1/7	—½	—5	—8	—6	—3½	—1	—11	—14	17	—13	—1	—4½
1/13	0	—7	—3½	—2	—4	—1	—11	—4	16½	—14	—2½	—4½
1/22	—2	—6½	—3½	—5½	—9½	—8½	—9	—9½	20½	—11½	6½	—9½
1/27	0	—5	—1½	—½	—2½	—7	—2	—9½	18	—15½	—1½	—5
2/3	0	—6	—2	—½	—1	1½	—3	—2½	17½	—18	—2½	—3
2/10	—½	—5	1½	½	0	—1	—2	—½	20½	—16	0	—½
2/17	—½	—8	1	1	—1½	—½	—3	—½	19½	—16½	—½	—1½
2/24	—½	—9	1	½	0	0	—2½	—½	21½	—18	½	—½
3/3	—½	—6½	2½	½	—1	—½	—1	0	19½	—18½	1	—2
3/11	½	—	2½	0	—2	—1½	2½	—½	19½	—20½	3½	—½
3/17	½	—4½	2½	0	—2	0	2½	—½		—	—2	—½
3/24	—½	—5	1½	—3	—2	—½	—4½	—3		—	—3	—3
3/31	—½	—3½	3½	—1½	0	—1	—3	—1½		0	—3	—2
4/7	—½	—3½	4	½	0	—1½	—3½	—½		—1½	—2½	—3½
4/14	0	—1½	8	8	3	2½	2½	14½		2½	2½	—2
4/21	½	1	16	18½	8	0	6	12½		3	12½	2
4/28	1½	4½	23½	27½	13½	1	9½	21½		4½	22½	4½
5/5	3	5	22½	34	13½	2½	3	30		—1½	28½	½
5/12	11½	20	32½	41½	21	3	19½	39		3½	41½	7½
5/19	15½	22	31½	45½	18½	4	15½	42½		5	41	5½
5/28	30½	39	37	59	24	9½	34½	55½		5½	61½	13½

6/2	38½	47½	41	68½	25½	15½	42½	65½	6½	72	17
6/9	44	49½	35½	66	22½	14½	32	64	—½	79½	12
6/16	50½	56½	40½	70	26	18½	35½	72	2	91	16
6/23	52	61½	38½	68½	25½	20	33	71½	4½	95	16
6/30	51½	59	37	65½	23	18	28½	70½	0	90½	14
7/7	55	63	40	70	26½	21	36	76	3½	97	16
7/14	55	63½	39	69	25	19½	34	74½	½	95½	14½
7/21	55½	64½	40½	72½	29	21½	38½	79	4	98½	17
7/28	56½	70	43½	78	31	25½	50	84	7½	104½	22½
8/4	57	71½	41½	75½	32½	24	40	82½	6	102	20½
8/11	55	68	39½	71½	30	20	33	76	2½	96½	16½
8/18	57½	73½	42½	76	33½	26½	47	82½	6½	106	23½
8/26	56	69	40	72	32½	20½	32	77½	½	98	18
9/3	57	71	43	77½	35	23½	41½	83	6½	103½	20½
9/8	55	63½	37½	70	26½	19	32½	74½	½	96	16½
9/15	55	67½	37½	68½	30½	17½	31	71½	½	94	15
9/23	55½	68	37½	67½	30½	18½	31½	70½	0	94	15
9/29	56½	70	37½	67½	31½	19	32½	70½	½	96	16
10/6	58½	75	44½	78	36	25	50½	93½	0	107	23½
10/13	59	73	44½	79	37	27½	47	85½	—½	106	21
10/20	57½	72½	41½	76½	36½	24	43½	82½	—2	104	19
10/27	58½	76½	44½	80½	37	26	52½	86½	—2	109½	24½
11/3	57½	74½	43½	78½	40½	26½	49½	85½	—1	108	21
11/10	58	73½	43½	79½	37½	24½	44½	85½	—1	107	19½
11/17	57	69½	40½	73	32½	21	50½	82½	3	104	17
11/24	58½	76	44	78½	37½	25½	46	84	—1	—	20½
12/1	58½	66	45	79½	37½	25½	56	87	—1	—	22
12/8	58½	75½	42½	74½	38½	24½	55½	89½	6	—	23
12/15	62½	78½	40½	81	37	26½	53½	88	—½	—	29½
12/22	58½	69	40½	76	33½	18½	47½	77½	—	—	—

Table 3c.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Chestnut Oak community individuals during 1960.

Date	Beech 2-1	Sweet Birch 2-2	Black Oak 2-3	Scarlet Oak 2-4	Chestnut Oak 2-5	Red Maple 2-6	Pitch-Pine 2-7	Chestnut Oak 2-8	Chestnut 2-10	Chestnut Oak 2-11	Sour-wood 2-12
1/6	—2½	—2½	—1½	—½	—2	—2	2½	—5½	—2	—3½	—6½
1/13	—2	—2	½	—½	—3½	—1	—4	—4½	—3	—1	—4
1/19	—1	—3	—1	—½	—5½	—2½	5½	—5	..	0	—4
1/26	—2	—4	—1	—1	—2	1½	0	—3	—2½	—3	—6
2/2	½	—4½	½	—½	—3½	—5½	—1½	—7	—3	—1	—7½
2/9	—2	—4½	—1	0	—4½	—2	0	—6	—3½	—1½	—7
2/16	—3	—28½	—5½	—4	—8½	—5½	—7½	—16	—3	—8	—10½
2/23	—2	—6	—2½	—1	—4½	—3½	—5	—10	—2	—6	—8½
3/1	—2½	—6	—7	—6	—4½	—6	—10	—18	—4	—8½	—10
3/8	—2½	—7	—8	—6	—4½	—9½	—14	—22	—4	—9½	—12
3/15	—2	—7	—3½	—4	—5	—5	—7	—19	—5	—4½	—10
3/22	—2	—6½	—3½	—2½	—4	—4	—6½	—10	—4½	—3½	—7½
3/29	—3	—6½	—4	—3½	—3	—7	—9	—10	—7	—8	—9½
4/5	—2	—4	—2	—1½	—3½	—2½	—5½	—7	—5½	—3	—7½
4/12	—3½	—6½	—5	—4	—3	—3½	—11½	—9	—9½	—8	—12
4/19	—3	—6	2½	4	2	—3	—9	—4	—10½	½	—10½
4/26	—3	—3½	12	17½	9	—2	—9	8½	—14	10	—9½
5/3	—2½	—2	17½	24	10½	—1	—2½	16	—12	14½	—9
5/10	0	6	19½	30½	11	1	6½	24	—11	23½	—5
5/17	½	6½	20	34	10½	—½	5½	27	—10½	22	—7½
5/24	8	15½	22	40½	12½	3	11½	34	—10½	26½	—5
5/31	15½	24½	26	47	14	6	11½	42½	—9½	31	—2½

6/7	28	35½	26½	49½	18½	10	9	47½	36	0
6/14	38	49	30½	57	19½	15½	19	59	44	6½
6/21	45	55	32½	58	22	18½	16½	64	51½	7½
6/28	48	59½	32½	59	21	20½	14	66	56½	9½
7/5	53½	66½	35½	63½	22½	21½	21½	74	61	13½
7/12	56	70	35½	64	21½	19½	22	77½	65	14
7/19	61½	78½	37½	69	24	22	31½	85	69	20
7/26	63½	77	35½	65	22½	20½	18½	81½	72	18
8/2	64	77½	34½	63½	22	20	15	81½	74½	17½
8/9	66½	80	37	68	24	21	—	87	79½	21½
8/16	67	81½	38½	69½	25	23	26½	88½	86½	23
8/23	67	81	38½	71	24½	23½	32½	90	91½	23½
8/30	66	79½	36½	68½	23½	20	21	87	93	23
9/6	65	78½	34	64	23	18	14½	82½	92½	21½
9/16	68	84	38½	71	24½	23	30½	86	97½	25
9/20	56	83½	42½	72	24	23	29	—	99	24½
9/29	65½	78½	37½	67½	22½	22	17	85½	96½	23

Table 4a.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1955.

Date	Chestnut Oak 3-1	Mockernut Hickory 3-2	White Oak 3-3	Scarlet Oak 3-4	Sour-wood 3-5
3/8	—1	—10	—2	—4	—5
3/15	0	—3	—4	0	—4
3/22	—1	—8	—2	—4	—8
3/29	—2	0	0	—2	—7
4/4	—18	9	—2	—13	0
4/12	—15	13	0	—11	2
4/19	—7	9	1	—12	—2
4/26	2	13	9	—4½	1½
5/3	—½	14	12½	7	—2
5/10	6½	21	21	24	0
5/17	20	24	26	35	5
5/24	24	30	32	51	11
6/1	29	33½	36	68½	12
6/7	43	41	45	83	19
6/14	54	43	53	72	21
6/28	81	51	80	125	—
7/5	94	57	97	145½	30
7/12	114	62½	117½	170	34½
7/19	121	63½	130	189½	34½
7/26	128	60	137	200	34
8/2	138	61	144½	214	35½
8/9	140	55	152	221½	33½
8/16	144	54	156½	230	34
8/23	153	67½	166	242	40
8/30	150	66	166	247	36
9/5	145	53½	162	245	33
9/13	142	44	160½	246	30½
9/20	143½	39	162½	245	29
9/27	152	60	167	249½	37½
10/4	152	67	167	250	37
10/11	153	69½	168	250	38
10/17	156	71	169	251	40
10/25	153½	69	168½	250½	38½
11/1	149	66	167	249½	34
11/8	149½	60½	167	249½	34
11/15	153	60½	168	250	37
11/22	151½	60	167½	250	37
11/29	139	21	153½	238½	28
12/6	148	57	166	244½	37
12/13	130	38	153	239½	28½
12/20	133	46	155	241	30½
12/27	149½	48½	167	249	36½

Table 4b.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1956.

Date	Chestnut Oak 3-1	Mockernut Hickory 3-2	White Oak 3-3	Scarlet Oak 3-4	Sour-wood 3-5
1/3	—9	—25½	—2½	—2	—3½
1/11	—6	—28	—1	—1½	—2
1/17	—11	—29	—2	—2	—4½
1/24	—15½	—31½	—15	—10½	—9½
1/31	—3½	—30½	—6	0	—4½
2/7	—4	—30	0	—1	0
2/14	—4	—25½	—½	—½	—1
2/21	—2	—20½	0	—½	0
2/28	8	—19	—2	—½	—1½
3/6	—6½	—16½	—3	—1½	—4
3/13	—6	—14	—2½	—1½	—4
3/20	—2	—12	—1½	—1	—3
3/27	—4	—10½	—2	—1	—3
4/3	—5	—2½	0	0	—1
4/10	—3	—1½	—1½	2	—3
4/17	—1	1	2	6½	—1½
4/24	½	1	1	10	—3
5/1	16½	3	10½	24½	—5
5/5	14½	5	15½	31	—4
5/12	23	8	29	47½	—2
5/21	34½	13	38	63½	—4½
5/30	39½	20	50	82	—1
6/5	40½	21½	52	91	1
6/12	44½	24	56½	107	0
6/19	58	35	70	125½	9
6/26	68	37½	77	136	9
7/3	71	43	86	136½	12½
7/10	86	43½	91	137	11
7/17	94	47	100	137	12
7/24	82½	48½	107½	137	13
7/31	92	49½	114½	137	13
8/7	94	46	118	137	10½
8/14	92½	48	124	142	14½
8/21	99	50	125	143½	15
8/28	99½	46	214½	142	11½
9/4	97½	47½	125	143½	13
9/11	97	41	124	142	10½
9/18	100	50	127	145	14
9/25	97	47	126	143½	12

Table 4b (Continued)
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1956.

Date	Chestnut Oak 3 1	Mockernut Hickory 3 2	White Oak 3-3	Scarlet Oak 3 4	Sour-wood 3-5
10/2	96	43	125	143½	11
10/9	97½	47	125	143½	11½
10/16	93	45	125	142	10
10/23	95	44	126½	145	13
10/30	94	41	125	144½	11
11/6	92	39	124½	144½	11½
11/13	92	34½	124	144½	9
11/20	91½	34	125	144½	9
11/27	92	34½	126	145½	12½
12/4	90½	32½	124½	144	10½
12/11	92½	34	128½	146½	16½
12/18	94	34½	128	147	15½
12/24	93	35½	128½	147	17
12/31	92½	33½	127	145½	15½

Table 4c.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1957.

Date	Chestnut Oak 3-1	Mockernut Hickory 3-2	White Oak 3-3	Scarlet Oak 3-4	Sour-wood 3 5
1/8	—15½	—19	—5	—2	—5½
1/16	—34	—55½	—19	—13	—13
1/22	—12	—22	—26½	—	—1
1/29	—9	—24	—½	—1	0
2/5	—9½	—23	0	0	0
2/12	—10½	—19	½	½	0
2/19	—10	—22	—3	—½	—2½
2/26	—15	—20½	—3½	—½	—3
3/5	—12½	—21	—4	—1½	—5
3/12	—13½	—18½	—3½	—2	—6
3/19	—15½	—13	—3	0	—5
3/26	—14½	—10	—3½	—½	—4½

Date	Chestnut Oak 3-1	Mockernut Hickory 3-2	White Oak 3-3	Scarlet Oak 3-4	Sour-wood 3-5
4/2	—13½	—5½	—1	1	—2
4/9	—12½	—2½	0	1½	—1½
4/16	—15	—2½	—2½	2	—6
4/23	—1	2½	5	15½	—4½
4/30	9½	6	23	33½	—8
5/7	12½	10½	29½	40	—8
5/14	16½	17½	41	49½	0
5/21	26	22½	46½	57	3½
5/29	34	26½	51½	60	3
6/4	42½	30½	60½	75½	5
6/11	53½	39	72½	86½	6
6/18	66	40½	82½	93	6
6/25	75	45½	93	98	9
7/2	80½	46½	98½	104½	7
7/9	87	46	105	110½	6½
7/16	90	42	108½	114½	5
7/23	98½	42½	117½	118½	8½
7/30	102	46	120	122	8
8/6	104½	46	123	125½	7
8/13	109	40	127½	128½	7
8/20	107½	32½	129	128½	5½
8/27	108	27	128	128	6
9/3	112½	37	137	131	13
9/10	113	44	138	132½	13
9/17	116	48½	138½	133	15
9/24	116	48½	139½	133	16
10/1	114	43½	133	130½	11
10/8	113	40	134½	130½	10½
10/15	111	36	132½	129½	8
10/22	115	39	136	131	12
10/29	116½	39½	136	133	14
11/12	115½	40	134½	133½	13
11/19	117	39	136½	135	17½
11/26	115	36	135	133½	12½
12/3	116	34	136	134	14½
12/10	117½	41½	137	135½	17½
12/17	116½	32½	135½	134	14
12/24	117	34	136	135	15
12/31	117½	32½	136½	135½	16½

Table 4d.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1958.

Date	Chest. Oak 3-1	Mockernut Hickory 3-2	Wht. Oak 3-3	Scarlet Oak 3-4	Sour-wood 3-5	Red Maple 3-6
1/7	—8½	—13½	—4	—4	—3½	—2
1/14	—2½	—22½	—2	—2	—1½	—½
1/21	—1	—23	—1	—1	0	0
1/28	½	—22	½	½	2	½
2/4	—15½	—21½	—8½	—5	—6	—2½
2/11	—27½	—52	—17	—13	—14	—5
2/18	—32½	—64½	—21	—15	—15½	—7½
2/25	—2½	—26½	—2	—1	—3½	½
3/4	—½	—24½	—½	1	—1	1
3/8	—	—	—	—	—	—
3/11	—2½	—23	—1½	—2	—4½	0
3/18	—2	—22½	—1½	—1½	—4	0
3/25	—1½	—18½	—1	—1	—2	0
4/1	0	—7½	—1	1	—2½	0
4/8	—½	—3	—½	½	—3	0
4/15	0	0	—½	½	—4½	0
4/22	6½	5	5½	11½	—4	1½
4/26	—	—	—	—	—	—
4/29	16½	7½	15	21½	1½	4
5/8	23	9	21½	27½	2	5½
5/13	28½	12½	24½	31½	—4½	7½
5/20	31½	17½	31½	38½	—6	16½
5/27	35½	21	36	44	—2½	22½
6/3	42	26	40½	51	—1½	32
6/10	54	33½	48½	58½	6	40
6/17	64	39½	55	64½	7½	51
6/26	76	56	63	83½	9½	61
7/3	82	50½	67	74½	5	78
7/10	97	64½	78	80	13	89½
7/17	106½	69½	85	90	15	99½
7/24	115	76½	92½	100½	17	105
7/31	123	83½	97½	112½	13½	113
8/7	151½	85½	100	131½	12½	119½
8/14	133	89	103	130½	13½	125½
8/21	133½	86	103	134½	10	128½
8/28	160	89	104½	139	13½	129½
9/4	135½	88	103½	139	12	130
9/11	135½	90	103½	139½	11	131

Date	Chest. Oak 3-1	Mockernut Hickory 3-2	Wht. Oak 3-3	Scarlet Oak 3-4	Sour-wood 3-5	Red Maple 3-6
9/18	160	92	105	140½	15	118½
9/25	137	92	105	140½	14½	131½
10/1	137½	91½	105	140½	14½	132
10/7	135½	90	103½	139½	11½	131½
10/15	134½	90½	103	139½	10	131½
10/21	134	86½	102½	139½	3½	131½
10/28	136½	83½	103½	140½	11	132½
11/4	135½	80½	102½	140½	10½	132
11/12	134	76½	101½	140½	8½	131½
11/19	135	75	102	140½	12	132
11/25	134	72½	101½	140½	10	132
12/3	133½	73	101½	139½	9½	132½
12/9	109½	26½	85	145½	½	125½
12/17	133	71	100½	138½	8½	131
12/23	132½	69½	99½	137½	9	131½
12/30	132½	70	101	137½	10½	132

Date	Beech 3-7	Mockernut Hickory 3-8	Red Maple 3-9	Pitch-Pine 3-10	Wht. Oak 3-11	Lg.-t. Aspen 3-12	Mockernut Hickory 3-13
1/7							
1/14							
1/21							
1/28							
2/4							
2/11							
2/18							
2/25							
3/4							
3/8							
3/11							
3/18							
3/25							
4/1							
4/8	0	0	0	0	0	0	0
4/15	—1	2½	0	—2	—1½	—½	—
4/22	—½	6½	½	—1	5	½	—
4/26	—½	5	1	—1	8	1	0
4/29	1½	20	8	9	20	38½	16
5/8	2	26½	10	9	27	—½	21
5/13	2½	21½	10	6	28	1	21
5/20	10	26	11½	4	32	7½	25
5/27	14	34	15½	6	37	13½	32

Table 4d. (Continued)
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1958.

Date	Beech 3-7	Mockernut Hickory 3-8	Red Maple 3-9	Pitch-Pine 3-10	Wht. Oak 3-11	Lg.-t. Aspen 3-12	Mockernut Hickory 3-13
6/3	23	42	24	6	42	24½	36
6/10	30½	58½	35½	11½	51½	37	49½
6/17	36	69½	41½	12½	61	46½	60
6/26	46	77	48½	15½	72½	62½	74
7/3	55	82½	49	12	78	72	81
7/10	64½	105	55	19½	91½	85½	106
7/17	69½	119	55½	20	101	95½	122
7/24	74½	134	56½	22½	110½	103½	136½
7/31	84	142	75½	20	119½	112	150
8/7	90	146	55	19	125	117	158
8/14	100½	153	55½	20½	131½	121½	170
8/21	109	150	54	17½	133½	120½	171½
8/28	14	144	55½	20	131½	121½	180½
9/4	117	157	55	19½	137	121	183½
9/11	119	155	55	18	136	121½	188
9/18	118½	162	56½	22	138	122½	196½
9/25	118	162	56½	21½	139	122	197½
10/1	118	163½	56½	22½	139½	123	195
10/7	118	156	55	18½	136	122	190
10/15	118	154	54½	18½	133½	122	191
10/21	118½	151½	54	18	133	121	189½
10/28	119	153	55½	20	142	122	190
11/4	119	147½	55	18	135	121	187
11/12	118½	142	54	16½	134	120	177½
11/19	119	139	55	18½	136½	121	182
11/25	119	133	54	17	134	120	177
12/3	119	133½	54½	19	133	120½	176½
12/9	102	88½	39½	16	115	94	152
12/17	118	131	53½	17½	133	120	175
12/23	117½	130	53½	13½	132½	119	173
12/30	119	130	54	14½	134	119½	167½

Table 4e.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1959.

Date	Chest. Oak 3-1	Mockernut Hickory 3-2	Wht. Oak 3-3	Scarlet Oak 3-4	Sour-wood 3-5	Red Maple 3-6	Beech 3-7
1/7	—21½	—34½	—15½	—9	—9	—2½	—2
1/13	—6½	—23½	—5	—3½	—7	—1	—1
1/22	—20	—40	—13½	—11	—9½	—2½	—3½
1/27	—5½	—22½	—2½	—2½	1	—½	—30½
2/3	—12½	—23½	—3½	—3½	—6	0	0
2/10	—4	—24½	—2½	—2½	—2	1	0
2/17	—3	—22½	—1½	—½	—2	1	0
2/24	—5	—26	—2½	—2½	—3	1½	½
3/3	—4	—26	—2½	—2	—3½	1½	0
3/11	—3½	—24½	—2	—1½	—2½	1½	1
3/17	—3½	—24½	—1½	—1½	—8½	2	1
3/24	—5	—23½	—2½	—½	—12½	2½	½
3/31	—3	—14½	—1½	3	—9½	1	½
4/7	—3	—7½	—1	—3½	—12	½	1
4/14	2	—6	1½	14	—10	1½	2
4/21	10½	—1	8	25½	—7	4	4½
4/28	18	2	16	57	—5½	3½	8
5/5	25	7	24½	60½	—10	5	18
5/12	34	16	33½	64½	—4	11	32½
5/19	34½	16½	34	79	—7	11½	41
5/28	43½	26½	41½	80	0	24½	64½
6/2	50½	31	47½	99½	1	33	75
6/9	54½	33½	52½	110	—1	35	84
6/16	60½	34½	58	125	—1	46	92½
6/23	70	40	67½	136	2½	52½	101½
6/30	76½	39½	75½	146	2	58½	109½
7/7	78½	35½	77½	154	2	61½	113
7/14	79	30	79	143	0	61½	114½
7/21	88	40½	88	154½	6	65	117
7/28	94	46½	95	169½	11	66½	118½
8/4	93½	41½	97½	117½	7	66½	118½
8/11	90½	30	97½	179	5	64½	117
8/18	94½	38	99½	183	11	67½	118½
8/26	92	23½	99	183½	4½	65	118
9/3	98½	39½	99½	185½	9	68	118
9/8	90½	26½	98	183½	6	65½	117
9/15	88	18	97½	183½	3	64	117½
9/23	88	12½	97½	183	2	64	117½
9/29	85½	8	95½	181½	½	62½	117½

Table 4e (Continued)
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1959.

Date	Chest. Oak 3-1	Mockernut Hickory 3-2	Wht. Oak 3-3	Scarlet Oak 3-4	Sour-wood 3-5	Red Maple 3-6	Beech 3-7
10/6	93	40½	102	187½	11½	68½	119
10/13	92	42½	102	188½	10	68½	120
10/20	90½	41½	101	188	8½	68	119½
10/27	94	42	104½	188½	15	69	121
11/3	—	—	—	—	—	—	—
11/10	92	35½	102	188½	9	69	121
11/17	—	—	—	—	—	—	—
11/24	92½	32½	101	188½	8½	69	121
12/1	—	—	—	—	—	—	—
12/8	94½	30½	102½	188½	11	68½	122
12/15	95	29½	103	189	14	69½	122
12/22	81	11½	91½	181	3	62	120

Date	Mockernut Hickory 3-8	Red Maple 3-9	Pitch Pine 3-10	Wht. Oak 3-11	Lg.-t. Aspen 3-12	Mockernut Hickory 3-13	Scarlet Oak 3-14
1/7	—43	—9½	—8	—16	—16	—30	
1/13	—35½	—3	—8	—6	—3½	—31½	
1/22	—55½	—8½	—5½	—11½	—19½	—25½	
1/27	—2½	—2	—3	—4½	—4½	—29½	
2/3	—34½	—3½	—1½	—11	—4½	—22	
2/10	—31	—1½	—4½	—3	—3½	—25½	
2/17	—29	—½	—5	—2	—2	—22	
2/24	—32½	—1	—5	—3	—2½	—24½	
3/3	—33½	—1	—4½	—3	—2	—25½	
3/11	—32½	—1	—2	—3	—1½	—25	
3/17	—40½	—3½	—2	—3	—1½	—41½	0
3/24	—44½	—4½	—8	—7½	—1½	—45	½
3/31	—37	—4	—4½	—4	—1	—38½	2½
4/7	—31½	—5	—6	—5	—1½	—30	2½
4/14	—26	—4	—2	—½	—½	—23½	5
4/21	—15	—2	—½	10	—5	—14½	10
4/28	—11½	—½	½	21½	—1½	—10½	15½
5/5	—9	—1½	—3½	30½	—2½	—8	21
5/12	8	2	2½	42½	10½	7½	28
5/19	8½	1½	—½	43½	13	5½	28
5/28	27½	8½	7	52½	32½	24	38½

Date	Mockernut Hickory 3-8	Red Maple 3-9	Pitch Pine 3-10	Wht. Oak 3-11	Lg.-t. Aspen 3-12	Mockernut Hickory 3-13	Scarlet Oak 3-14
6/2	39	13½	9½	60	40½	35½	44
6/9	39	16	6	63½	46½	41½	49
6/16	45	20	6	70½	55	51½	56
6/23	51½	24½	8½	80	64	62	64½
6/30	50½	25	8	88	70½	73½	72
7/7	49	24	7	92½	71	77	75½
7/14	41½	23	6	93½	72	87½	77
7/21	53½	26½	11	102½	77	88½	83
7/28	63	28	15½	109	80½	98	92½
8/4	48	26	12	110½	79½	91	97½
8/11	36½	24½	8½	106½	76	83	97
8/18	46½	26½	13½	99½	89½	94½	100½
8/26	26½	25	8	108½	77	77½	100½
9/3	48½	27	10½	111	82½	91½	103½
9/8	25½	24½	7	105½	74½	77½	102½
9/15	21	24	6	103	74½	71½	103
9/23	15½	23	5	102½	73½	68	102½
9/29	9	21½	3½	101	72½	64½	102
10/6	53	28½	14½	113	81	95	117
10/13	53½	27½	12	113	81½	95½	121
10/20	52	27	11	109	81	94½	122
10/27	59	31	16	113	82	99	124
11/3	—	—	—	—	—	—	—
11/10	47½	29	12½	110½	79½	91½	123
11/17	—	—	—	—	—	—	—
11/24	41½	27½	12½	109½	80	85	123
12/1	—	—	—	—	—	—	—
12/8	44½	29	18½	113	80	86½	122
12/15	45½	30½	15½	114½	81½	86½	122½
12/22	13½	21½	15	105½	65	69½	114½

Table 4f.
Dendrometer data: accumulative weekly growth data in thousandths of an inch for Mixed Oak community individuals during 1960.

Date	Chest Oak 3-1	Mockernut Hickory 3-2	Wht Oak 3-3	Scarlet Oak 3-4	Sour-wood 3-5	Red Maple 3-6	Beech 3-7
1/6	—6½	—17	—4½	—3	—5	—3½	0
1/13	0	—20	—2½	—½	—2	0	0
1/19	—6½	—27	3	—7	0	2½	4½
1/26	—8½	—30	2	—6½	—3	—2	3
2/2	—7	—29½	2½	—6	—4	—2	3
2/9	—6½	—29½	2½	—6½	—2	—2	3
2/16	—8	—29½	2½	—6½	—4	—2	3
2/23	—9½	—32	0	—7	—5	—4	3½
3/1	—24½	—33	—4½	—12½	—8½	—4	3
3/8	—15½	—16½	7	6½	8	14	22½
3/15	6½	—17½	16½	7½	12	15½	22
3/22	8	—17	19½	11½	13½	16½	23
3/29	9	—13	19	12½	11½	6½	22½
4/5	12	6½	20½	13½	14½	17½	23
4/12	8½	8½	19	13½	10½	13	22
4/19	14½	13	21½	20	10	18	22½
4/26	27½	16½	33½	36	9½	20	22½
5/3	34	19½	38½	44	10½	24½	24½
5/10	42	24	45½	51½	15½	29½	28
5/17	44½	26	45½	53½	13½	33	29½
5/24	50	31	51½	—	16½	44	35½
5/31	57	34½	54	—	18	53	42
6/7	62½	38	55½	75	14½	66	49½
6/14	73½	44	63½	85½	19	79½	55½
6/21	78½	45½	66	95	17½	85½	60½
6/28	83½	45	69½	103½	17	93½	63
7/5	90	47	74½	113	18	110	66
7/12	96½	49½	80½	121½	20½	113	67
7/19	102½	53	86½	104½	23	120	68½
7/26	104½	53	90	140	20	124	69
8/2	105½	48	91	144½	19	124½	69
8/9	111½	52½	96	151	22	132	69
8/16	113	52	96	155	21	133	69
8/23	114½	53	97½	157	23½	133½	69
8/30	114½	53	97½	159	22	123	70
9/6	109½	41	93½	157	18	115	68½
9/16	114½	52	99	160	22½	135	70
9/20	116	54½	99½	160½	24	135½	70
9/29	112½	47	95½	158	20	121	69½

Date	Mockernut Hickory 3-8	Red Maple 3-9	Pitch Pine 3-10	Wht. Oak 3-11	Lg.-t. Aspen 3-12	Mockernut Hickory 3-13	Scarlet Oak 3-14
1/6	—13½	—3½	—1½	—23	0	—11	—3½
1/13	—15½	0	—5½	—1	—7½	—18½	—1½
1/19	—6½	—1	½	—7	—15	—1½	—5
1/26	—15	—1½	—5	—8	—13	—9	—7
2/2	—16	—1	—4	—8	—14	—8½	—7
2/9	—15	—½	—4½	—8	—14	—8½	—6
2/16	—17½	—1½	—2	—8½	—14	—11½	—7½
2/23	—22	—2½	—3	—12	—15	—17	—6½
3/1	—23	—9	—5½	—23½	—29½	—18	—11½
3/8	—11½	8½	11½	—13½	—12½	—3	6½
3/15	—11	16	8½	11½	4	—6	9
3/22	—9	16½	13	3	4½	—4½	11
3/29	—8	16	7½	4½	4½	—6	11½
4/5	11½	17	13	8½	5½	15½	15
4/12	7	15½	8½	3	4	13½	13½
4/19	12½	15½	9½	6	5	24½	18
4/26	17½	16	8½	20½	5½	29	28
5/3	21½	18	11	31	8	32½	31½
5/10	34½	22½	17	41	11	42½	39
5/17	37	20½	16	43	12	43	43
5/24	48	25½	18	48½	16½	53	55
5/31	56	27½	18	51	24½	58½	67½
6/7	—	30½	14	49½	31	64	85
6/14	70½	40½	19½	60	41	77	105
6/21	69	43½	16½	62	48	79	125½
6/28	69½	45	15½	66	52	85	144
7/5	76	46½	17½	74½	57½	93	165
7/12	82½	48½	20	81½	62½	100½	182
7/19	87	48½	23	88½	66½	105½	201
7/26	81½	46½	30	91½	66½	103½	214
8/2	77½	45½	28	92½	64	104½	
8/9	86	48½	33½	99½	66	109	
8/16	82½	46½	32½	101½	66	105½	
8/23	88½	48½	35	109½	67½	109½	
8/30	81½	47	33½	102½	67	106½	
9/6	66	44	28½	98	64	97½	
9/16	85	49½	36½	103	67	109½	
9/20	89	48	38	104	68	110	
9/29	72½	45½	30½	99	66	100	

Table 5.
Mixed Mesophytic station: Growth initiation (Init.) dates, i.e., measurement date preceding first increase over maximum of winter dormant period, and total yearly increment (Incr.), i.e., difference in thousandths of an inch between maximum reading of the year and maximum reading at or preceding initiation date.

Tree No.	1955		1956		1957		1958		1959		1960	
	Init.	Incr.	Init.	Incr.	Init.	Incr.	Init.	Incr.	Init.	Incr.	Init.	Incr.
Ring-porous species												
1-3	4/19	82	4/24	78	4/23	77	4/22	82½	4/14	109½	4/26	87
1-2	5/10	62½	5/21	62	5/7	68	5/27	24	5/5	50	5/17	60
1-7	4/12	233	4/10	142½	4/16	156½	4/15	140	4/7	118	4/19	95
1-4	4/12	209½	4/10	173½	4/9	106	4/15	81	4/14	92½	4/19	75
1-6	4/12	142½	4/24	99½	4/16	106½	4/15	100	4/7	86½	4/19	61½
1-15											4/26	72½
Diffuse-porous species												
1-11	5/3	78	6/5	42½	5/7	42½	5/20	86	5/5	67½	5/24	35½
1-1	4/19	364	4/24	303	4/23	185	4/15	165½	4/14	164½	5/17	166
1-14											5/3	147
1-13									5/19	40	5/3	58½
1-8	4/12	164	5/5	128	5/7	116	4/22	136½	4/14	155½	4/26	—
1-10	5/3	11½	—	—	—	—	3/4	(28)	4/14	11	—	—
1-5	4/19	227	5/5	160½	4/16	132	4/22	121	4/21	114½	5/3	104½
1-12									5/5	131½	5/3	—
1-9	5/10	260	5/12	146½	5/7	100½	4/29	203	4/14	294	—	—

Table 6.

Chestnut Oak station: Growth initiation (Init.) dates, i.e., measurement date preceding first increase over maximum of winter dormant period, and total yearly increment (Incr.), i.e., difference in thousandths of an inch between maximum reading of the year and maximum reading at or preceding initiation date.

Tree No.	1958 Init.	1958 Incr.	1959 Init.	1959 Incr.	1960 Init.	1960 Incr.
Ring-porous species						
2-3	4/26	46	4/7	42½	4/12	42½
2-5			4/7	40½	4/12	25
2-8	(4/26)	132	4/7	93½	4/19	90
2-11	4/1	233½	4/14	106	4/12	99
2-4	—	(161)	4/7	80	4/12	72
Diffuse-porous species						
2-1	4/29	105½	4/28	61	5/17	67½
2-2	4/26	102½	4/21	77½	5/3	84
2-6	4/26	51	5/5	25	5/17	22
2-12	4/26	44½	4/14	27½	6/7	25
Non-porous species						
2-7	—	(81½)	4/14	53½	5/17	27

Table 7.
Mixed Oak station: Growth initiation (Init.) dates, i.e., measurement date preceding first increase over maximum of winter dormant period, and total yearly increment (Incr.), i.e., difference in thousandths of an inch between maximum reading of the year and maximum reading at or preceding initiation date.

Tree No.	1955		1956		1957		1958		1959		1960	
	Init.	Incr.	Init.	Incr.	Init.	Incr.	Init.	Incr.	Init.	Incr.	Init.	Incr.
Ring-porous species												
3-2	4/19	62	4/24	49	4/16	48½	4/15	92	4/21	46½	3/29	54½
3-8							—	163½	5/5	63	3/29	89
3-13							(4/26)	197½	5/5	99	3/29	110
3-1	4/19	156	4/24	92	4/23	117½	4/15	159½	4/7	98½	3/8	116
3-4	4/26	251	4/3	147	4/16	133½	4/15	139½	4/7	186	3/1	160½
3-14									—	(124)	3/1	214
3-3	4/12	169	4/10	126½	4/16	139½	4/15	105	4/7	104½	3/1	97
3-11							4/15	123	4/14	114½	3/8	109½
3/5	5/10	38	6/12	16	5/14	17½	6/3	15	6/16	13	3/1	24
Diffuse-porous species												
3-12							(4/26)	(121½)	5/5	82½	3/8	68
3-7							4/26	119	4/14	120	3/1	65½
3-6							4/22	131	5/5	64½	3/1	135
3-9							4/15	(75½)	5/19	29	3/1	49½
Non-porous species												
3-10							—	(22½)	5/19	16	3/1	38